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**(54) BONDING PAD  
STRUCTURE FOR  
SEMICONDUCTOR DEVICE**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To prevent peeling or cracking of an applied insulating film which constitutes an interlayer insulating film in a bonding pad structure for a semiconductor device.

**SOLUTION:** A pad layer 14b, an interlayer insulating film 16, a pad layer 20b, an interlayer insulating film 22, a pad layer 26b, and an interlayer insulating film 28 are successively formed on an insulating film 12 for covering the surface of a semiconductor substrate 10 into a laminated state. Both insulating films 16 and 22 contain applied insulating films, such as SOG(spin-on-glass), etc., and the upper surfaces of the films 16 and 22 are flattened through CMP (chemical mechanical polishing), etc. Plural of connection

*managing*

holes 16B and 22B are respectively made through the insulating films 16 and 22 and connection plugs 18b and 24b of W, etc., are respectively buried in the holes 16B and 22B. A connection hole 28B is made through the insulating film 28, and a pad layer 32b is formed in the hole 28B in such a way that the layer 32b comes directly into contact with the pad layer 26b. At bonding wires to the pad layer 32b, the connection plugs 18b and 24b reduce the bonding stresses exerted on the insulating films 16 and 22 below the connection hole 28B.

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